

decide to do so) without any penalty or prejudice whatsoever, including applicants' rights under §§ 121, 120 and 119.

**REMARKS: REQUEST FOR RECONSIDERATION**

The final Office Action of September 14, 1999, and the prior art now relied upon have been carefully reviewed. The claims in the application are now (upon entry of the amendment presented above) claims 5-10 and 27-30; these claims define patentable subject matter warranting their allowance. Favorable reconsideration, entry of the present amendment and allowance are earnestly solicited.

The restriction requirement has been repeated and made final. Applicants accept the PTO ruling that the claims in the two groups are patentably distinct from one another, i.e. patentable over one another. The non-elected have therefore been deleted without prejudice and without loss of rights, including those rights provided by §§ 121, 120 and 119.

The examiner points out that the Abstract intended to have been filed with the last reply was not received by the PTO. Undersigned regrets the inconvenience caused. Such Abstract is attached hereto, and its entry is respectfully requested.

Claims 5-10 and 27-30 have now been rejected as obvious under §103 from Maruta alone. This rejection is respectfully traversed.

Claim 5 is the main method claim, and indeed the only independent claim remaining. All the other claims depend from and incorporate the subject matter of claim 5. As noted in line 3 of claim 5 (amended), see page 1 of the reply filed June 30, 1999, all of applicants' claims require **an aqueous system**; indeed, the requirement of an aqueous system is present in claim 5 in its original form (last clause of original claim 5). **The presence of an aqueous system is important!** The plant substance having an active-oxygen-eliminating activity absolutely must be in an aqueous system, i.e. an aqueous is indispensable for the inhibitory agent (comprising trehalose) to homogeneously cover the surface of the plant substance and homogeneously penetrate into the plant substance. This result cannot occur with dry powders. This is not only logical in retrospect, but is made quite explicit in applicants' specification in the paragraph bridging pages 5 and 6:

The present agent can be preferably incorporated into plant edible substances and/or plant antioxidants by allowing the agent to contact with the substances and/or the antioxidants **in aqueous systems** as homogeneity [homogeneously] as possible.  
(emphasis and bracketed material added)

The same paragraph then goes on to mention various "juicy" forms including "a liquid or suspension form"; and when the agent is "a powder, crystal, or solid", it is "incorporated into the plant edible substances as homogeneity [homogeneously] as possible by mixing with and dissolving ...."

While in the case of using plant edible substances and plant antioxidants in a solid form, **they are treated with water** to give a **juicy form** such as a liquid or suspension form, .... (emphasis added)

Mixing trehalose with a dry antioxidant or plant substance, i.e. in the absence of an aqueous system, simply will not permit the trehalose to penetrate into the plant's substance and provide the protection achieved by the present invention.

This point appears to have been overlooked by the PTO, because Maruta simply does not show the use of an aqueous system in applicants' environment. The rejection refers to Maruta at column 32, lines 44-60, which does indeed appear to be the closest that Maruta comes to the present invention, but this disclosure (Example B6) involves the mixture of "**powdered** orange juice prepared by spray drying" with "a high trehalose content **powder**". Maruta neither discloses nor makes obvious what is claimed in all of applicants' claims, namely carrying out the claimed incorporation "in an aqueous system".

Novelty is not an issue, as the PTO agrees that applicants' claims are novel, i.e. the rejection is under §103, and therefore the PTO agrees that Maruta does not disclose everything that is claimed in claim 5. However, the PTO does equate that stabilizing an antioxidant is a method of inhibiting the decrease of active-oxygen-eliminating activity. Respectfully, this is a conclusion reached after review of applicants' disclosure, i.e. a retrospective or hindsight conclusion. Stabilizing a compound which is an antioxidant, e.g. L-ascorbic acid, can mean many different things, e.g. that the antioxidant is stabilized so that, possibly, it becomes less subject to degradation. This has no positive or definite relationship to "inhibiting the decrease of active-oxygen-eliminating activity".

Because the rejection is under §103, the issue is "obviousness". There is nothing in Maruta which would have made it obvious to use trehalose to inhibit the decrease of active-oxygen-eliminating activity, and certainly nothing in Maruta which would have led the person of ordinary skill in the art to do so in "an aqueous system" where such an effect will be achieved in a superior manner.

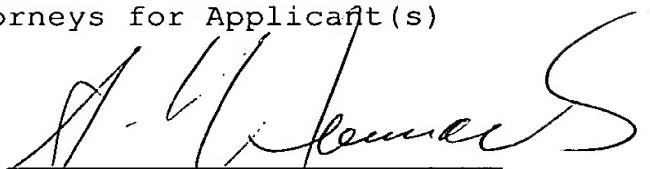
Withdrawal of the rejection is respectfully requested.

Favorable reconsideration, entry of the present amendment and allowance are earnestly solicited.

Respectfully submitted,

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Abstract of the Disclosure

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A decrease-inhibitory agent for active-oxygen-eliminating activity includes trehalose as an effective ingredient. A method for inhibiting the decrease of active-oxygen-eliminating activity comprises incorporating either trehalose or the decrease-inhibitory agent into plant edible products and/or plant antioxidants. With the method, compositions can be easily obtained wherein the reduction of active-oxygen-eliminating activity of the plant edible products and/or plant antioxidants is satisfactorily inhibited.

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